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FLORIDA STATEWIDE DIGITAL INITIATIVE

RECOMMENDATION FOR A STATEWIDE DIGITAL PLATFORM

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Contents

Executive Summary.....	1
Introduction	2
Factors for Consideration in Identifying A Statewide Digital Platform	2
The Need for A Turnkey Solution with Low Barrier to Access	2
Issues of Readiness and Sustainability	3
Consideration of Locally vs. Commercially Hosted Solutions	3
Recommendation for a Statewide Digital Platform	4
Conclusion	6
Appendix A	7

Executive Summary

This report is part of a multi-phase project commissioned through a request for proposal (RFP) process undertaken by the Florida Department of State's Division of Library and Information Services (DLIS). The purpose of the project is to develop a revised approach to moving forward with the Statewide Digital Initiative as described in the [Digital Action Plan 2015-2018](#). The deliverable for this phase of the project is to provide "recommendations for a single Digital Repository Software to be used in creating a statewide digital platform. Suggestions for the long-term preservation of digital masters for libraries that use the statewide platform. Suggestions for which partner(s) should host the platform."¹

The purpose of a statewide digital platform is to expose the wealth of archival and historical materials held by libraries, archives, museums and other cultural heritage organizations who have insufficient resources to locally manage digital repository software and all that entails.

Recommendations are made as follows:

The DLIS should partner with the Florida Academic Library Services Cooperative (FALSC)² to make FALSC's hosted implementation of the Digital Repository Software, Islandora (FL-Islandora), available as a statewide digital platform.

- FL-Islandora is an established Digital Repository Software that is already being employed on a statewide basis in the public higher education system, and its multi-tenant architecture makes it easy to add new institutional sites.
- Services for FL-Islandora have been developed to facilitate use by those with basic skill levels, including Excel metadata templates, automated metadata creation tools and training materials. With additional development by DLIS staff, these services could be enhanced so that use of FL-Islandora as the statewide digital platform is as "turnkey" as possible.
- FL-Islandora provides the features and requirements desired by the DLIS.

FALSC supports the Florida Digital Archive (FDA) which provides for long-term preservation of digital masters. The DLIS should explore this as an add-on service to users of the statewide digital platform. Alternatively, FALSC and the DLIS should explore implementation of Islandora's preservation capabilities.

¹ DOS RFP 07/17-95, p. 30.

² FALSC provides services to the libraries of Florida's State University System (SUS) and College System (FCS).

Introduction

In August 2017, the DLIS released an RFP for a Statewide Centralized Digital Repository Consultant. The RFP called for a multi-phase project to “identify revised methods to move forward on the Statewide Digital Action plan using information gathered from the five Multitype Library Cooperatives (MLCs)³, Florida Academic Library Services Cooperative, the Sunshine State Digital Network for the Digital Public Library of America (DPLA) and the Division of Library and Information Services (DLIS) to identify the best approach in moving forward with the Statewide Digital Initiative.”⁴

This report addresses the deliverable to provide “recommendations for a single Digital Repository Software to be used in creating a statewide digital platform. Suggestions for the long-term preservation of digital masters for libraries that use the statewide platform. Suggestions for which partner(s) should host the platform.”⁵ In this context, the statewide digital platform is understood to be a software solution supported by the DLIS to house digitized archival and historical materials held by Florida libraries, archives, museums and other cultural heritage organizations who have insufficient resources to explore, evaluate, download, configure and manage digital repository software. The purpose of the statewide digital platform is to expose the wealth of digitized historical and archival materials around the state and to provide broad discoverability of those resources through the Sunshine State Digital Network (SSDN) and Digital Public Library of America (DPLA).

The recommendations made herein are the result of a consideration of the requirements of a statewide digital platform, discussions with DLIS partners and close consultation with DLIS leadership and staff.

Factors for Consideration in Identifying a Statewide Digital Platform

A variety of factors were considered in determining the best solution for a statewide digital platform:

- The need for a “turnkey” solution with low barrier to access.
- Issues of readiness and sustainability.
- The pros and cons of locally hosted vs. commercially hosted solutions.
- Desired features and requirements. (See Appendix A.)

The Need for a Turnkey Solution With Low Barrier to Access

As the target audience for the statewide digital platform is libraries, archives, museums and other cultural heritage organizations who need a digital platform but have insufficient resources to locally manage digital repository software, the solution must have a low threshold for use as its primary characteristic. The interface must be user-friendly, with easily navigated search features and a logical presentation of workflows. The system should support pre-defined workflows and provide for batch

³ The five MLCs consist of the Northeast Florida Library Information Network (NEFLIN), Panhandle Library Access Network (PLAN), Southeast Florida Library Information Network (SEFLIN), Southwest Florida Library Network (SWFLN) and Tampa Bay Library Consortium (TBLC).

⁴ DOS RFP 07/17-05, p. 29.

⁵ DOS RFP 07/17-95, p. 30.

loading of files and metadata. Each institution using the platform should be able to have their own branding without having to do web design or programming.

A system that simplifies working with metadata is also a key factor for consideration. To those new to working with digital objects the terminology of metadata schema can be intimidating. This is one of the two major obstacles cited by the MLCs for smaller organizations taking on digitization tasks, the other being the lack of a stable platform in which to house the digitized materials. Thus, having a statewide digital platform that demystifies assigning metadata through the use of templates and other means is desirable.

Issues of Readiness and Sustainability

The successful launch of the Sunshine State Digital Network (SSDN) as a pipeline for contribution to the Digital Public Library of America (DPLA), in conjunction with a refresh of the DLIS Statewide Digital Initiative are likely to re-energize digitization efforts on a statewide basis. Organizations with existing digital collections will be eager to contribute metadata to the SSDN/DPLA stream, and those with digitization projects pending in want of a platform will be anxious to move forward as the statewide digital platform is implemented. Feedback from the MLCs and others have identified the lack of a statewide digital platform as the primary barrier to digitization efforts. Ideally, the platform will be available as the revised Statewide Digital Initiative is launched. A solution that entails a lengthy implementation and training program for start-up is likely to hamper efforts and diminish enthusiasm.

The statewide digital platform also needs to be a sustainable solution. One that is overly dependent upon grant funding or fluctuating budgets poses an elevated risk to long-term success. The architecture of the software should be such that new sites can be readily established as new partners join. Varying levels of administrative permissions should exist to allow as much local management as is feasible. Training on the use of the platform should be created for standardized use across the state so no single training entity is overly burdened.

Consideration of Locally vs. Commercially Hosted Solutions

For the purposes of this discussion, local hosting of a statewide digital platform assumes that the DLIS or one of its partners (e.g., an MLC or FALSC) would host the server and software and provide the requisite maintenance and upgrades. Remote/commercial hosting of a statewide digital platform assumes that a third-party commercial vendor (e.g., OCLC or Lyris) would do so.

On the surface, a locally hosted solution at the DLIS appears to be logical. The DLIS has a robust digital program in place with [Florida Memory](#) and extensive in-house expertise on best practices in digitizing materials, metadata standards and long-term preservation. They also have in-house expertise in developing secondary content from digital collections, including educational materials and exhibits. Florida Memory staff are frequently approached by groups looking to create digital collections. There are several factors, however, that present challenges to this solution. Their current digital platform, Omeka, is not configured in a way that would readily provide for additional collections with their own distinct branding and identity. The DLIS does not house or control the server that their digital platform resides

upon, so getting new collections set up may be laborious. Restrictions on how state-owned servers may be used and what data may be stored on them could also be problematic.

Having one of the MLCs provide a locally hosted solution for use on a statewide basis was also under consideration. Several have experience in working with partners to digitize materials, some have well-developed digitization support programs of their own, and all provide training in this area. The MLCs also have experience in serving a broad spectrum of libraries. Yet implementing a hosted statewide digital platform would be a significant undertaking for any of the MLCs given current staffing levels, so capacity to do so would have to be built-up over time. Most would likely need to acquire a server and hire staff to install and manage the digital platform software. The level of interest in hosting a statewide digital platform also varies among the MLCs. It may be difficult for an MLC hosted platform to be perceived as a truly statewide solution and not proprietary to the hosting organization, as the MLCs are established to serve specific regions throughout the state and each have their own membership.

FALSC, another DLIS partner, was also considered as a local host option. FALSC already manages, develops and maintains an implementation of Islandora, called FL-Islandora, that is available to Florida's 40 institutions of public higher education. Islandora is an open-source digital repository platform with a robust international development and support community. Like the DLIS, FALSC has extensive in-house expertise on best practices in digitizing materials, metadata standards and long-term preservation. They also have the in-house system administration and technical development support required to maintain Islandora's somewhat complex architecture. However, FALSC's digital services program has been in a state of transition in recent years. If FALSC were to provide a statewide hosting solution by making FL-Islandora available to libraries, archives, museums and other cultural heritage organizations through a contractual arrangement with the DLIS, it would have to be done in a way that had minimal impact on FALSC resources.

Finally, commercially hosted solutions were considered. These options would likely provide the lowest barrier to uptake, at least from a technical standpoint, as server maintenance, software installation and upgrades would be handled by the hosting company. Most well-established digital repository hosting services also provide extensive standardized training materials and technical support. They are likely to be the most expensive solution, however, and the cost of these services is often prohibitive to the smaller institutions that a DLIS-supported digital platform is intended to serve. Opting for a commercially hosted solution as opposed to working with one of the DLIS's established partners may undermine the intention to centralize statewide efforts and lessen the sense of collaboration between organizations across the state.

Recommendation for a Statewide Digital Platform

Much consideration has been given to the recommendation for a statewide digital platform and hosting solution. The availability of this platform will be a significant factor in the success of the Statewide Digital Initiative, as the lack of an online, discoverable space in which to put digitized content has been the biggest barrier to success.

Through discussions with DLIS partners, a review and evaluation of currently available digital repository software and hosting options, and consideration of all the factors cited herein, the Digital Initiative Consultant and DLIS agree that the best option for a statewide digital platform is FALSC's FL-Islandora implementation. This could be achieved through a contractual arrangement that would make FL-Islandora available to libraries, archives, museums and other cultural heritage organizations with insufficient resources to maintain their own digital platform. Expectations for all parties should be clearly delineated in a Service Level Agreement (SLA) or Memorandum of Understanding (MOU).

Use of FALSC's FL-Islandora implementation resolves several challenges raised in this report. FALSC provides services on a statewide basis, so is not likely to be seen as having regional biases. FALSC's FL-Islandora implementation is a well-established digital platform that has been developed in response to Florida's unique needs and collections and has an extant network of knowledgeable users across the state. FALSC has also developed tools, such as templates for the creation and submission of metadata, that facilitate use of the system by those with basic skill levels. Once an agreement is in place between FALSC and DLIS on the use of FL-Islandora as the statewide digital platform, the adoption barrier by new organizations should be low. And a locally hosted, in-state solution rather than a remotely hosted, commercial solution will bolster the sense of centralized collaborative effort critical to the success of the Statewide Digital Initiative.

In some instances, FALSC is already providing space for the digital collections of groups outside of the State University System (SUS) and Florida College System (FCS). Florida State University (FSU), for example, has been working with the First Baptist Church of Tallahassee and Leon High School to digitize materials from their archives. These collections live within DigiNole, FSU's digital repository, which itself resides in FALSC's implementation of Islandora. These collections were digitized, described and loaded into FL-Islandora with no impact on FALSC staff resources. This approach could be modeled with other external organizations, with college and university staff, staff of the MLCs, or DLIS staff acting as the intermediary. What will be different for non-college and university collaborations is the contractual basis (e.g., cost recovery) under which they operate with FALSC.

Preliminary discussions with the DLIS and FALSC indicate that this recommendation is satisfactory to both parties. Each organization has within its mission the goal to facilitate the discoverability of Florida's valuable cultural heritage materials, and a collaboration between these two major statewide service entities could be a powerful force in moving the Statewide Digital Initiative forward. Using FL-Islandora as the statewide digital platform also addresses many of the issues raised in the platform consideration process, including the need for a turnkey solution that can be readily deployed, the benefits of a locally vs. commercially hosted solution and the desired platform features.⁶

FALSC's Islandora installation is a multi-tenant rather than a multi-instance configuration, which makes the addition and management of new sites fairly simple. FALSC estimates that initial site set-up would require about 3 hours of FALSC's technical support resources. Additional site set-up includes basic

⁶ See Appendix A.

theming, including color choices and the addition of logos and other branding materials. The site set-up typically requires some back and forth between FALSC and the new site administrator, which FALSC staff estimates at 5-8 hours. A new site submission form could be created that would allow electronic submission of color elements, logos, text, etc. FALSC staff could provide training to MLC and DLIS staff so they could handle the information-gathering aspect of site set-up.

While FALSC staff would continue to support digitization efforts for its SUS and FCS users, support for other institutions would be provided either by SUS/FCS or MLC/DLIS staff working with those partners. It is anticipated that a Statewide Digital Initiatives Toolkit will be developed that includes information on prioritizing content for digitization, best practices for digitizing material in various formats, metadata standards, organization of digital content, etc.

Most users of the statewide digital platform are likely to be small organizations with little or no expertise in the Metadata Object Description Schema (MODS) used in Islandora. FALSC already has a solution for this in the form of an ExceltoMODS transformer. The ExceltoMODS transformer takes information from an Excel spreadsheet, maps it to MODS elements and produces MODS metadata files suitable for loading into Islandora. No knowledge of MODS is required by the submitter and FALSC has already developed an Excel template to be used with the ExceltoMODS transformer. DLIS staff has the expertise to further develop and simplify these templates.

The features of FL-Islandora, many developed as enhancements for Florida's academic libraries, meet the needs identified by the DLIS. (See Appendix A for the completed evaluation matrix.) FALSC's Florida Digital Archive (FDA) provides for the long-term preservation of digital objects, and the DLIS should explore use of the FDA as part of its service contract with FALSC. Alternatively, Islandora has preservation capabilities that are not currently installed in FALSC's implementation. This might merit further exploration by the DLIS and FALSC.

Conclusion

The DLIS should partner with FALSC to make FL-Islandora available as a statewide digital platform. FL-Islandora is an established digital software repository platform that is already being employed on a statewide basis in the public higher education system, often in conjunction with external partners. FALSC has developed metadata templates, workflows and training to facilitate use of FL-Islandora by users with basic skill levels. DLIS staff are ready to help further develop these and create the training to support them. In addition to DLIS staff, the MLCs already provide training around digitization projects and are prepared to provide training on using whatever statewide digital platform is selected.

Finally, digitization efforts across the state can only be strengthened through collaboration by these two major statewide service entities.

Appendix A

Platform Evaluation Matrix – Desired features and requirements

Features	Digital Repository Platform
General	FL-Islandora
Description	
Offers preservation of digital masters	Includes checksum creation for each file. (Islandora's preservation functionality isn't implemented in FL-Islandora.)
Offers method of migrating media	Yes, including CONTENTdm migration tool.
Integrates with cloud storage providers	Yes
Offers integrated management of digital, electronic collections	Yes, by allowing OAI-PMH harvesting of Islandora metadata for inclusion in discovery tools.
Supports IIIF	Yes
Supports ResourceSync	No
Supports RESTful HTTP API	Yes
Supports OAI-PMH	Yes
Support for APIs and/or other interfaces that will allow the library to develop extensions to the core software	Yes
Offers multiple options for deposit of digital materials: end user, bulk load, etc.	Yes
Supports pre-defined workflows for upload of digitized material and their metadata	Yes
Ability to be harvested by the Florida DPLA hub and other metadata aggregators	Yes
Content Management	
Allows for multiple libraries to have their own homepage and branding within same statewide platform	Yes
Each library will be able to upload and manage their own content, create collections, exhibits, etc.	Yes

Content Acquisition	
Batch import of objects/files	Yes
Batch import of metadata	Yes
Batch export/content portability (to other systems)	Yes
Metadata	
The system should support: Dublin Core EAD METS MODS VRA Core	Yes
Ability to add/delete customized metadata fields	Yes
Set default values for metadata	Yes
Supports import and export (with no loss of data) in all supported formats	Yes
Forms for batch editing metadata	You can batch output and replace MODS, but no forms exist for batch editing.
Supports PREMIS data model and data dictionary	Yes
Generation and validation of identifiers	Yes
User Interface	
Full text indexing and searching	Yes
Search all descriptive metadata	Yes
Search selected metadata fields	Yes
Faceted search and browse	Yes
Navigation and search functions are intuitive and easy to use	In general, yes.
Ability to sort search	Yes
Supports integration with library search and discovery tools	Yes, by allowing OAI-PMH harvesting of Islandora metadata for inclusion in discovery tools.
Viewer for zooming, panning	Yes
Social media features for commenting, tagging, rating items	Yes

Support for mobile or responsive themes	Yes
Contact form	Yes
Access Control and Privacy	
Supports a robust and flexible yet straightforward system for assigning roles and permissions to staff functions	FL-Islandora provides five levels of permissions.
Supports authorization/authentication which is role/attribute-based	Yes
Ability to limit access at the collection level	Yes
Ability to limit access at the file level	Yes
Ability to define user roles/permissions	Yes
Reporting and Analytics	
Reporting system supports the customization of reports by library staff. This includes but is not limited to: changing of reports parameters, views, time range etc.	No. Report changes must be done by Islandora administrators.
Includes a dashboard in which it is possible to monitor ingest/uploading	The FLVC-developed Offline Batch Ingest utility includes such functionality.
Ability to analyze historical data and provide trend analysis	No
Includes a dashboard in which it is possible to monitor collection usage and downloads	Google Analytics provides usage information site-wide. At the collection level page view counts but not download counts are available.
Google Scholar specific metadata embedding	Yes
System Administration and Management	
Supports basic fulfillment capabilities during local institution network outage	In theory, yes, but FLVC's COOP server is not quite complete.

Supports linking of digital resources to the relevant physical/electronic resources in library catalog	Yes
Comes with "Out of the Box" definitions and configurations so that the library need only make minimal changes to the standard settings	Yes, to a certain extent, but more work could be done in this area to facilitate use by smaller institutions with limited resources.
Access to documentation and manuals	Yes
Customizable to the extent that it can be branded with the library identity	Yes
Institutional control of style, images and graphical elements	In FL-Islandora institutions can control color schemes, graphical elements and images, but within a common FL-Islandora "look and feel" that provides consistency in the FL-Islandora user experience.
Permits offline stylesheet	?
Allows testing via mockups, development instances, or similar means	FL-Islandora maintains a development server, a test server, and a production server. Each institution has its own test and production instance.
Offers bug track/feature request system	Yes
Provides for multi-tenancy	Yes
Provides for multi-instances	Yes
Support	
Has robust community or vendor support	Yes
Responsive to user requests for features and updates	DLIS and FALSC will have to determine the level of support provided.